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REPORT

of the

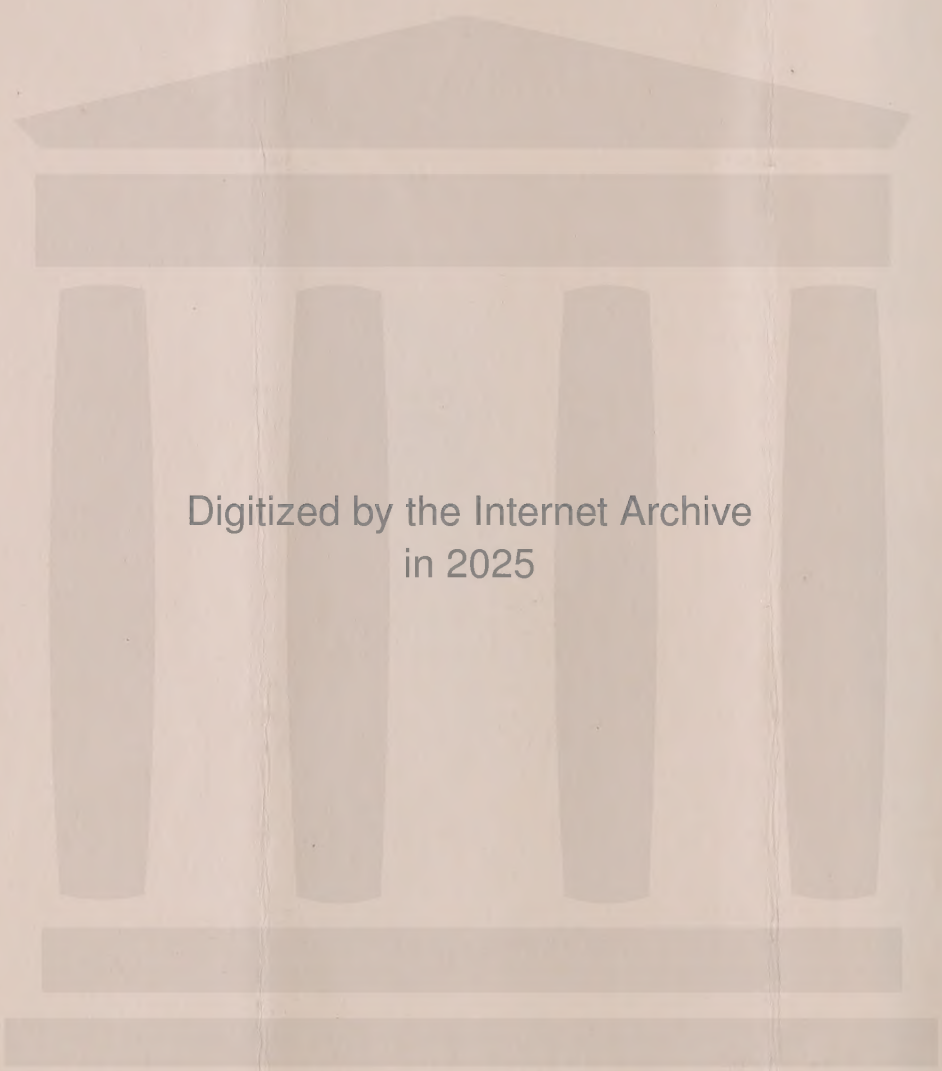
DEPARTMENT

of

AGRICULTURE

for the year

1944



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Report of Director of Agriculture, 1944

The Chairman,
Board of Agriculture.

AGRICULTURE IN 1944

The main aims of agricultural policy during the year under review were

(1) the maintenance of vegetable production at a high level.

(2) the increase of fruit production.

(3) improvements in the health of livestock.

(4) the more orderly marketing of produce.

For most farmers the year 1943 was more successful than were the two previous years. Weather was generally kind, winds failed to reach destructive force, and, apart from a dry spell in May, the rainfall was well distributed without being excessive for the crops. The total rainfall for the year as recorded at the Agricultural Station was 57.96 inches which compares with a mean annual rainfall for the last ten years of 58.94 inches.

Shortage of farm-help continued to be one of the farmer's chief worries; resulting mainly from the call for labour to work at the naval and military bases. The situation was relieved to some extent by the arrival early in the year of fifty farm-labourers from the Azores. Vegetable seeds were obtained from the United States in adequate quantity and in good time, but there was delay in shipment of Bliss Triumph seed potatoes for the autumn crop which, though they were dug early and dispatched from Nova Scotia with promptitude, were yet held up in transit and were late in arriving in Bermuda. Supplies of fertiliser and fungicides were adequate thanks to the work of the supply authorities in Bermuda and overseas.

The Chief Food Crops. The spring potato crop consisted chiefly of the varieties Sebago and Irish Cobbler with a small proportion of Chili Garnet. Blight was troublesome during the early stages of growth in some fields and Sebago showed less resistance than had been hoped of it. It manifested tolerance of dry conditions, which set in after eight weeks of growth, and this variety along with the Garnet remained green when other varieties wilted in the sun. The yield varied greatly from field to field but was disappointing on the whole.

On the other hand the autumn planting of Bliss Triumph potatoes gave the best yield for many years. The average yield on farms was 6.3 barrels for each barrel of seed planted (approximately 5 tons per acre), and yields of 12 from 1 were recorded which are unusually good for the early potato crop. A notable feature of this crop was that over 90% of the seed planted on farms was Bermuda-grown. This seed was of Nova Scotian or Nebraskan extraction grown for one generation in Bermuda, and stored over the summer under refrigeration. It proved to be of good quality and for the greater part free from infection by virus disease. The Department's policy that selected locally-raised seed be used for the autumn planting was fully justified by the excellent results obtained.

The supply of green vegetables was rather low at the beginning of the year as a result of abnormally wet weather in the autumn of 1943. From February onwards until the height of summer good variety and abundance were maintained. Greater success was reached in fitting production to local consumption than in any previous year and, apart from a small surplus of cabbage at the height of the season, there was no appreciable over-production leading to wastage. The autumn-planted vegetables made exceptionally good growth, and by Christmas they were available in greater range and quantity than had been seen at that season for many years past.

As in previous years, in the case of the chief vegetables, maximum prices were fixed regulating wholesale purchases from the producer by the retailer, and retail purchases by the consumer. As a protection to the producer and in order to steady the market, minimum prices were also set for sales by the producer to the retailer. The years of war have seen a great expansion of production and consumption of local produce. A notable feature of the sales in the local market, perhaps associated with the Price Control Orders, has been the large increase in retail sales by farmers, many of whom peddle their produce from door to door and sell direct to the housewife.

The Easter Lily Trade. There continued to be a very keen demand in the United States and Canada for Easter Lily bulbs and prices reached a new height. The cases of lily bulbs exported in 1944 numbered 3961, as against 3448 in 1943. Increased plantings were made in the autumn for the 1945 crop. Small quantities of other bulbs, chiefly amaryllis and narcissus, were grown for shipment to Canada.

Livestock. The shortage of farm-help, to which reference has already been made, was felt most keenly by dairymen whose work calls for regular and dependable help every day of the year. Adequate supplies of imported cow-feed were available and favourable weather helped the growth of grass. The pasture was supplemented on the best of the dairy-farms by the feeding of green oats in the spring, green corn (maize) and cow-peas in the summer, and sweet-potato tops in the winter. The total number of dairy animals according to the records of the Department is 1543, of which 61 are bulls. Some of these bulls are of mediocre quality, and an improvement in their standard is a pressing need of the dairy industry.

The number of pigs kept on the farms was well maintained. A census of pigs taken at the beginning of August to determine the number of different ages showed a total in the Colony at that time of 3343 pigs. For the greater part of the year the local supply filled all requirements of fresh pork, but hams and bacon continued to be imported. Improvements in the housing and keeping of pigs have been made, particularly on the larger farms, but there still remains ample room for improvement.

The poultry population, which is largely dependent upon imported feed, remained at a low ebb and eggs tended to be scarce except at the height of the laying-season. Importations of baby chicks, which were made from the United States at the end of the year, will be helpful in renewing the laying-stock in the coming year.

The Agricultural Exhibition. The agricultural event which attracted the greatest interest in the community was an Exhibition held at the Agricultural Station on 26th and 27th April, the first large agricultural show held since 1933. Its revival was greeted warmly by everyone and the enthusiasm and willing aid brought to it by so many helpers more than overcame the special difficulties of starting again after a lapse of eleven years. Nearly 10,000 people were admitted to the grounds during the two days. Most came on the second day which was made

a public holiday, when the attendance was almost 8,000. But for the rain early in the afternoon which caused many people who were on their way to turn back, this number would have been greatly exceeded.

The quality of the exhibits attracted very favourable comment. The total number of exhibits was 2941 shown by 1150 exhibitors. This included 1303 exhibits of Arts and Crafts and Food Products sent in by 772 school-children. The total number of the entries did not nearly reach that of some previous exhibitions, and children's exhibits in particular were considerably less, a secondary symptom perhaps of the whooping cough epidemic. But the general opinion was that there were much fewer mediocre and poor exhibits than usual and that the standard reached in most classes was remarkably high. Entries in the various classes were as follows:—

	Class	*No. of Exhibits*
1.	Livestock	296
2.	Vegetables	628
3.	Fruits	63
4.	Flowers	272
5.	Food Products	381
6.	Arts and Crafts	1301
		2941

The display of vegetables was said by one most competent to judge to be the largest and best seen at such an Exhibition, evidence of the increased efforts which have been made during the war by farmers and home-gardeners to raise vegetables in variety and abundance. The flower exhibits were of good quality but were fewer than usual, an indication of the fact that many of our flower-beds are now bearing vegetables instead. Special features in the flower-tents were the exhibit of flowers from the Parks of Hamilton made by the City Corporation, and the exhibit from Mr. Hilborn's gardens of Mayfair which included a collection of unusual cacti.

There were some good poultry and many good horses, but other types of livestock were disappointing with the notable exception of an exhibit of sheep and lambs which were a thrilling novelty to many of the children. The cattle were few, largely as a result of restrictions on the movement of cattle made by the Department in the interests of disease control.

The Food Products Section showed the many ways in which housewives are conserving vegetables and fruit. Exhibits of Arts and Crafts were exceptionally good and they attracted the attention they merited. Specially fine were the examples of furniture and of wood-carving made from local cedar, and it was interesting to see what attractive work is being done not only by the professional craftsmen but also by the amateurs who do woodwork in their spare time. The good effect of the manual training being given at the various Centres was readily seen in the boys' exhibits of woodwork and metal work, and the examples of needlework which came from the schools earned a special word of commendation from the judges.

Special features of this Exhibition were the displays made by various institutions. The Domestic Science School had a very attractive booth to show how a limited income could best be used to give a nutritious diet. The Department of Public Health demonstrated some of the ways in which it is striving to improve sanitation and safeguard the health of the community. The Nicholl Institute and the Manual Training Centre in Pembroke and Somerset all displayed how boys

are being trained to use both head and hands in woodwork and metal-work. An exhibit which drew the greatest praise was the display of work by Bermudian craftsmen arranged by a committee headed by Mr. Will Onions. This was in the form of a living-room furnished throughout by pieces made by cabinet-makers and workers in Bermuda cedar. Finally there was a large exhibit by the Department of Agriculture stressing the triple aim: to grow more fruit, more summer crops, and more fodder for cattle.

The programme in the Show Ring during both afternoons of the Exhibition was an attractive one and under the direction of an energetic Ring Committee it proceeded smoothly and without delays. Most of the classes of horses were judged in the first afternoon, while the second afternoon was devoted to a horse-gymkhana in which young members of the Bermuda Pony Club were prominent. A display by the Military Command was an outstanding feature of the first afternoon.

The nett cost of the Exhibition to the Government was £170. The benefits though hard to assess were very real, and can perhaps be gauged by the keen interest taken by the community in the event and by the widely expressed desire that an Exhibition be regularly held every second or every third year.

II. WORK OF THE DEPARTMENT

Experimental Work. As in the earlier years of the war, research work had largely to give way to the increased demands of food-production and conservation. Observations made on some varieties of vegetables appear worth recording. Eight varieties of potatoes were grown of which samples were sent to Mr. E. A. McCallan by Mr. W. K. McCulloch of the Dominion Experimental Station at Kentville, Nova Scotia. The samples were small and they suffered from drought during the last month of their growth but, under the limiting conditions of the test, the varieties Sequoia and Warba emerged with high marks for yield, followed by Clark's No. 3, Arran Consul, Houma, Epicure, Earlaine, and Chippewa. Of four varieties of tomato grown during the winter months, Rutgers gave the best results, followed by Stokesdale and Masters Marglobe. Stokesdale also did well in the early summer crop, as also did Valiant, both of which are varieties obtained from Messrs. Francis C. Stokes, Ltd., of Vincentown, N.J.

The onion variety Early Grano, also known as Early Sweet Spanish, which had given promising results in a small test the previous year was tried on a field scale and compared favourably in yield with the Yellow Bermuda variety commonly grown. The hybridisation of *Lilium longiflorum* was continued with the object of obtaining Easter Lilies of hardier type and free from disease.

Excellent results were obtained with the variety of oats named Sac grown as a green fodder-crop for cattle. This variety is resistant to crown rust and it grew with great vigour reaching as high as six feet when in flower and with an abundance of leaf.

Seed of a cauliflower from Mauritius sent by the Comptroller for Development and Welfare in the West Indies was given a trial alongside Bermuda-grown seed of two Indian varieties Early Benares and Early Market. The Mauritian variety was found to be three or four weeks later in heading than these Indian varieties, but it gave larger heads of better colour and texture. Seed is being saved so that a more extensive trial can be given next summer.

Food Production. Following the practice of previous years, regular visits were paid by inspectors to all farms of any size in order to determine the quantities of vegetable produce ready for market and to estimate future supplies from the extent and condition of plantings. At the same time it was possible to give advice on future plantings, on the varieties to grow, on the control of pests and diseases,

and on other matters of concern to the farmer. Stress was laid by the Department on the growing of more summer vegetables with a year-round production as the ultimate aim.

The farm-machinery available for hire to farmers was augmented and improved during the year by the addition of a new tractor and cultivating tools, and by the mounting of a second power-sprayer on a motor-truck. The Cletrac tractor already in use was in constant demand and there was left no room for doubt that this service fills a real need. The sprayers were more than busy during the crop seasons and could hardly keep up with the calls of farmers for their services. An increase in their number is to be made as soon as conditions of supply permit.

Stocks of agricultural supplies were kept under constant review by the Department. Estimates of future requirements of seed, fertilisers, insecticides, and farm-tools for the Colony were prepared and in some instances bulk orders were placed. The seed potatoes which were required from abroad were selected and purchased by the Department. Large quantities of vegetable seedlings were started at the Agricultural Station for sale at lost cost to farmers and gardeners, and many more were distributed in this way than in any previous year.

Marketing of Produce. The Government Wholesale Market started in 1943 to assist the orderly marketing of local vegetables had a successful second year. Aided by the records of the crop-reporters from the various districts, the Marketing Officer was able to keep himself informed as to the supplies of vegetables coming along and where they could be obtained, while keeping in touch also with store-keepers and other large users of vegetables with a view to supplying their needs. Discussions were held with the Supply Officers of the British and American Forces to discover to what extent the needs of the Forces could be supplied by local production. It is felt that every possible measure should be taken to facilitate the supplying of the Defence Bases by local produce, since this reduces the need for transportation of food which may be needed elsewhere and at the same time provides an outlet for vegetable produce which is surplus to requirements of the local market.

The marketing of the main potato crop was undertaken by the Department as in former years. Growers of potatoes were given the opportunity of selling their sound marketable potatoes to the Government as soon as they were dug and the storage and disposal of the crop were undertaken by the Department. Many growers availed themselves of this offer which not only assisted them by ensuring a prompt cash return but also prevented much of the wastage which would doubtless have occurred if the potatoes had been held on the farms where means of storage are in many cases inadequate. The potatoes, which were bought in May, were held for a few weeks in warehouse and then in refrigerated store and were sold in July and August without serious wastage.

Conservation of Food. The Government Gold Storage Plant proved once more the value of refrigeration in the marketing of perishable vegetables, and the benefits derived from it were limited only by the small size of the plant. It caused the season when green vegetables were in the market to be extended, and ensured the safe storage of the locally-grown seed potatoes during the warm months. Space proved quite inadequate for all requirements in the summer when it was found desirable to store part of the eating potatoes under refrigeration, and, through courtesy of the United States Army in Bermuda, refrigerated space at Fort Bell was made available for a few weeks.

The Canning Plant at the Agricultural Station was opened in April for three months during which time carrots, beets, and string beans, and small quantities of tomatoes, were packed. Apart from carrots these vegetables were offered for canning in smaller bulk than in former years, and the canning programme was curtailed accordingly. As, however, the 1943 pack had been withheld for sale in

accordance with a request of the War Time Supplies Commission, the Department had a large stock for disposal at the end of the canning season. In the period from August until the end of the year, nearly half of the total supply was sold. The Canning Plant was opened again in December for a new project, the making of preserves. Owing to the strict rationing of sugar, a few citrus-growers found that they had sour oranges and wonder-lemons which they could not use, and the proposal was made that the Department obtain an allowance of sugar and utilise this fruit. Technical assistance was kindly offered by the Domestic Science School and, with one of their staff as supervisor, the new venture was tried. The preserve turned out well and over 3,000 lbs. of jam was handed over to the War Time Supplies Commission for sale locally. Another project tried on a small scale was the curing of bacon. A simple salt-cure was tried which was thought suitable for domestic use. A good product was obtained which could no doubt be improved upon by further trial and experience.

Growing More Fruit. An enthusiastic response was given to the Department's campaign to grow more fruit. The planting of citrus trees was specially encouraged and, in order to save time, several consignments of budded trees of proven varieties were imported from Florida by the Department for residents who desired to grow them. Between January and April, 2313 young trees were brought in and were distributed to 307 growers, in accordance with the policy that many people should plant a few trees in their garden rather than that individual plantings should be on a large scale. Over a third of these trees were oranges, rather less were grape-fruit, and the remainder were lemons, limes, tangerines, and other types. The Plant Pathologist compiled detailed instructions for the planting and cultivating of the trees, which were published as a special bulletin. A spraying schedule was included which is designed not only to keep pests and diseases at bay but also to protect the trees against mineral deficiencies. The Horticulturist and the Agricultural Assistant gave very close supervision to the plantings. Advice was given on planting situations and spacing of trees before they came, and both advice and practical assistance were given in planting, cultivating, and spraying the young trees after their arrival. A record was kept of all the trees, their variety, rootstock, and planting-site. It is the intention to maintain this record and to include particulars of cultivation and performance, so that in course of time a mass of useful information should be acquired. Most of the trees came in splendid condition and many have thriven and have made astonishing growth since they were planted. In order to foster and maintain the enthusiasm of the start, an Association of Citrus-Growers was founded with the object of holding regular meetings and of giving mutual aid. A new citrus orchard was planted at the Agricultural Station in the northern pasture near Abbotsford, containing a wide selection of varieties on several stocks on which careful observations will be made.

Horticulture. Although much of the Horticulturist's time was given to the fruit-growing campaign, other aspects of Horticulture were not neglected. The propagation of ornamental plants of merit was continued, and shrubs and trees were made available without charge to public bodies and at low cost to private individuals wishing to improve the countryside by planting. Advice and planting-material was given to the United States Navy and Army for their Defence Bases and Camps. Owners of property were urged to remove trees of fiddlewood, *Citharexylum spinosum*, whose harmful qualities are considered far to outweigh its good. The tree spreads very rapidly and, where it springs up amongst Bermuda cedar, the cedar-trees are rapidly outgrown and destroyed. Grass and other vegetation will not grow under the fiddlewood so that the soil is exposed and becomes liable to erosion. The fiddlewood is an untidy tree, and is the chief food-plant of the white-fly, one of the most troublesome pests of citrus.

The grounds of Government House were kept in attractive condition and additional plantings of ornamental trees were made. Improvements were made in the Bernard Park, though here progress is hard in the face of continual wanton

destruction. The ornamental grounds at the Agricultural Station were maintained in good order, and new plantings of trees were made in the Montrose Orchard. The electrically-heated propagating beds were rebuilt.

Plant Diseases and Pests. Disease of the Bermuda cedar spread during the year and caused serious concern. The symptoms, which were most obvious where the trees were shaded or overcrowded, consisted of a browning and dying of the foliage from the lower branches upwards. As the cedar is the dominant tree covering hillsides and untilled land, the damage and destruction is of some consequence. The Plant Pathologist in his report for 1943 described this as an entomological problem, and indicated a hopper, *Ormenis infuscata*, and a midge *Contarinia juniperina*, as the causes. During investigations continued in 1944, a small parasitic wasp was found associated with the juniper midge, and this was identified by Mr. Nixon of the Imperial Institute of Entomology as an *Inostemma* of a species not hitherto described.

In the Plant Pathologist's absence in the United States observations were continued on affected foliage from several diseased areas. In all cases the presence of mites were noted and in some cases mites and mite larvae were in such numbers as to suggest that they might be a major cause of trouble. In one area a mussel-shaped scale insect which had not previously been recorded was found in abundance. As this was not seen in other affected areas it is not regarded as of first importance. Specimens of the scale and of mites were sent to the Imperial Institute of Entomology for identification. At least three pests have now been suggested as possible causes of the trouble and the investigation has reached a point where a trained entomologist could give valuable assistance. While scientific work has been proceeding, a gang of men has been employed in some of the worst areas to remove dead and dying wood, and, by thinning trees and clearing underbrush and vegetation, to give affected trees more air and light and strengthen them against attack. Trees treated in this way in 1938 have shown a measure of recovery.

The spring planting of potatoes suffered heavy attack from Phytophthora blight but otherwise the incidence of disease on the vegetable crops was not severe. The autumn planting of potatoes remained free from blight and both potato crops showed no significant infection by virus. Damage to the Easter Lily crop (*Lilium longiflorum*) by *Phytophthora parasitica* was noted as more severe than usual during wet weather in the autumn. A disease of minor importance recorded for the first time on flowering stems and rootstocks of Canna was provisionally identified as Bud Rot due to *Phytomonas cannae*. Small plantings of Roselle, *Hibiscus Sabdariffa*, were badly attacked by *Sclerotinia sclerotiorum* which caused a rotting of the flowering stems. An additional host-plant of this fungus to be recorded was the ornamental plant *Wedelia trilobata* Hitch. Special study was given to diseases and pests of citrus. Symptoms of malnutrition in young trees were attributed to lack of available manganese and zinc, and a nutritional spray containing these elements is being widely used. Melanose caused by *Diaporthe citri* (Faw) Wolf was found severely damaging grape-fruit in dense shade, and scab due to *Elsinoe fawcetti* Bitancourt & Jenkins occurred on sour oranges under similar conditions. Wither Tip of lime caused by *Gloesporium limetticolum* Clausen was also recorded. An outbreak of rust mites on oranges was checked by the use of wettable sulphur spray.

The most destructive single pest was the potato tuber-moth *Gnorimoschema operculella* which caused heavy damage to late-planted potatoes in the field. The spinach Talinum, obtained from Florida and grown with success during the summer, proved susceptible to *Halticus citri*, the Black Capsid Bug.

Numerous cases of damage to crops by rats were reported. While root-crops such as sweet potatoes and cassava were chiefly involved, the damage covered a much wider range of crops including cauliflower heads, irish potatoes, and in one one case sweet oranges. The Department co-operated with the Public Health Department in their drive against rats, and poison-baits of zinc phosphide on sweet

potato chips or bread crumbs were made and distributed. In two small pond areas moor-hens and coots caused significant destruction of vegetable plants and after much discussion legislative sanction was obtained for the capture or killing of the offending birds by the Department.

In addition to assisting in the fruit-growing campaign, the Plant Pathologist gave help to the Council of Social Welfare in its discussions on the formation of youth clubs and on nutrition and the family budget. On 24th October he was granted duty leave for a year to work in co-operation with Prof. H. H. Whetzel of Cornell University on a collection of fungi from Bermuda. The death of Prof. Whetzel on 30th November was much lamented in Bermuda where his visits to help in the control of diseases and pests, his tireless energy, and his infectious enthusiasm, are held in memory.

Veterinary Work. To meet the increased incidence of tuberculosis in dairy cattle which was found in 1943, the tuberculin test was made compulsory for all cattle and was performed more frequently. In place of the annual test, arrangements were made for testing of all cattle at six-monthly intervals and, in herds where disease was found, at three-monthly intervals until two consecutive tests showed no reaction. In his report the Government Veterinary Officer records that, amongst nearly 1500 cattle tested, 37 reactors were found, as against 92 reactors in the previous year. It is believed that this more frequent testing, combined with slaughter of reactors and cleaning of infected premises, is proving effective and that if continued through the next two or three years will result in the incidence of tuberculosis falling to a very low figure.

The vaccination of calves against Bang's Disease was continued and 235 calves between the ages of 4 months and 8 months were treated. This has been done as a compulsory measure since 1942 and in that time over 400 cattle, or more than one-quarter of the cattle population, have been immunised in this way. For the supply of the vaccine for this work, and for material used in the tuberculin test, the Department was indebted to the United States Army Veterinary Service and the Bureau of Animal Industry at Washington to whom cordial thanks are expressed.

Disease amongst pigs in Devonshire North broke out in the early summer. Hog cholera was at once suspected but characteristic symptoms were not immediately seen nor was its occurrence typical since the disease was confined to the one area. The Government Veterinary Officer prohibited the movement of swine in the area and the inoculation of pigs with hog cholera serum was carried out as a precautionary measure. In the district affected about 250 pigs died and symptoms later appeared which suggested the presence of hog cholera. In order to determine the cause of the epidemic an experiment was planned and carried out by Dr. R. E. Shaw, the Pathologist at the King Edward VII Memorial Hospital, and by Dr. J. W. Sutherland and the Government Veterinary Officer. A series of young pigs were inoculated with material from a diseased pig, some of the experimental animals being protected with serum of hog cholera and haemorrhagic septicaemia, others being left unprotected. From results of this experiment and of post-mortem examinations, the conclusion was reached that hog cholera was present, in mild form at first but increasing in virulence. The veterinarians were of opinion that haemorrhagic septicaemia occurred simultaneously in the field, though this was not found under the conditions of the experiment. Lungworms, *Metastrongylus elongatus*, were also found. A similar disease occurred in Southampton Parish in 1943 and it is perhaps significant that both epidemics occurred where garbage from military camps was being fed. This suggests the possibility that infection is arising through the feeding of uncooked swill containing imported pork. In order to prevent a recurrence it is proposed to inoculate all pigs with hog cholera serum during the late spring, or shortly before the time when disease is liable to occur. It is recommended also that the cooking of swill be supervised closely, that the need for cleaner sties be stressed if lungworm infection is to be avoided, and that at the first signs of an outbreak of disease a very strict quarantine be enforced.

Advice and Instruction. Many requests for advice were received by the Department and were given attention. Meetings of growers and of Garden Clubs and Arbor Societies were addressed, and occasional articles were written for the local press. Nine numbers of the Agricultural Bulletin were written and distributed locally. Special bulletins on more technical subjects included two by the Plant Pathologist on Citrus Culture and on Plant Protection in Bermuda, and a report on Fruit-growing in Bermuda, written in 1943, was printed and offered for sale. The popular bulletin, Hints on Growing Vegetables, which had run out of print was revised and sent to the press for republication.

Seed was supplied for school-gardens and advice was given when asked, but pressure of work prevented any degree of supervision of school-gardening activities from being given. The filling of the post of Agricultural Instructor for Schools, for which a suitable person had not been found up to the end of the year, is much to be desired since this should result in a useful extension of this work.

The scheme started in 1943 to provide training for selected young men and women interested in agriculture as a career has given promising results so far as it has gone. Two who were awarded scholarships in 1943 for two years at Macdonald College are in the second year of their Diploma Course and have worked for one summer on farms in Canada. Both have profited by their instruction and should return to Bermuda to engage in farming with enlivened interest and up-to-date knowledge. Of the two appointed in 1944, one is attending Macdonald College and the other is at the North Carolina State College. In accordance with a suggestion from Macdonald College, boys being sent there under the scholarship scheme are now required to spend a few months before the classes start on a farm recommended by the College, so that the boys will have some practical knowledge of farming under Canadian conditions before entering for the Diploma Course.

At the request of the Board Mr. F. S. Furbert, the Principal of the Berkeley Institute, visited several agricultural colleges while on a visit to the United States and Canada in order to report on their suitability for coloured students from Bermuda. In his report, besides giving information as to the courses and facilities of the various colleges, Mr. Furbert recommended that a higher standard of schooling be required of future scholarship applicants. The award of junior agricultural scholarships to local secondary schools, which aims at this result, was continued. The two junior scholars, whose appointment dated from January, 1944, attended at the Agricultural Station for a short course of instruction in gardening in the summer.

Director's Visit to Canada. The Director travelled to Nova Scotia in August to select and purchase the Colony's requirements of seed potatoes. Mr. W. K. McCulloch of the Seed Potato Inspection Service and his staff at the Dominion Experimental Farm at Kentville put their knowledge and records of the plantings of seed potatoes at his disposal, and with their help seed of high quality was secured. Although this method of bulk purchase by Government has been laid on the Department through difficulties of shipping in wartime, it has many advantages over the pre-war method, or lack of method, whereby several orders were placed by various importers in Bermuda acting without co-ordination and in competition. Even when shipping conditions return to normal, the bulk purchase of the Colony's requirement of seed potatoes is worth maintaining. A visit was paid to Macdonald College to discuss with the Dean and with the Professor in charge of Diploma Students the course for agricultural scholars from Bermuda and the scholastic standard which they should have. A very favourable impression was gained of the course and of the facilities for a sound agricultural training at the College. The three holders of scholarships in Canada, who were at this time gaining practical experience on farms, were visited and were found to be making good use of their time. A journey was made to the headquarters of the Imperial Parasite Service at Belleville, Ontario, where the possibility of controlling insect pests in Bermuda by parasites was discussed with the Director, Dr. W. R. Thompson.

Finally the opportunity was taken to renew contact with Canadian firms in St. John, Halifax, and Montreal who handled vegetable produce from Bermuda in pre-war days.

Legislation. Reference has already been made to the Local Produce Price Control Order made by the War Time Supplies Commission with whom the Board of Agriculture kept in close touch, fixing maximum and mimimum prices for main items of local produce. A further order prohibited the sale of canned vegetables during the period 8th February to 31st July, in order that the best possible use might be made of the plentiful supply of fresh vegetables then in the market. Reference has also been made to an amendment of The Wild Birds Protection Act, 1902, to allow the killing of moor-hens and coots by the Department when proved to be causing damage to growing crops.

Acknowledgements. The year covered by this Report brings almost to an end my period of service in Bermuda, and I would not close it without some words of acknowledgement and appreciation. It is with sincere regret that I leave this Department with which as Plant Pathologist and then Director I have served for 13 years. It is a pleasure, however, to look back on the loyal and efficient work of the Staff which has merited the highest praise, on cordial relations with members of the Board of Agriculture, and on friendly contact with farmers and gardeners in Bermuda. It is not possible even briefly to mention the chief events and achievements of this period. One development is worth noting, that, in the years of war as never before, farmers have learnt the value and importance of the local market. Apart from the specialised growing of lilies for export, farmers have planted and have grown their produce entirely for the local community whose wants have been studied, and, so far as possible, have been met. It is hoped that this greater appreciation of the home-market is reciprocated by a greater realisation by the community of the importance of a prosperous and efficient farming industry. Reckoned only in monetary terms, Agriculture in Bermuda might be considered a small thing. But when it is remembered that the fruits of agriculture are not only the farm-produce that comes to town but include also the men whom it produces, the healthful employment it gives, the rural homes, and the smiling countryside, then the value of agriculture to the community becomes difficult adequately to assess.

T. A. RUSSELL,
Director of Agriculture.

23rd February, 1945.

Board of Agriculture, 1944

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Department of Agriculture, 1944

Director of Agriculture, T. A. Russell, B.Sc., A.R.C.S., A.I.C.T.A., Dip. Agr. (Cantab).
Plant Pathologist, J. M. Waterston, B.Sc. (Edin.) A.I.C.T.A.
Agricultural Assistant, W. R. Evans
Horticulturist, C. A. Baker
Inspector of Produce, T. Arthur Hollis
Clerk to Board and Director, Mrs. N. E. Pollendine
Government Veterinary Officer, C. J. Cooper, V.S.
Assistant Inspector of Produce, C. V. S. Early